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03195127 **Image available**

RECEIVER MADE INTO IC**Pub. No.:** 02-170627 [JP 2170627 A]**Published:** July 02, 1990 (19900702)**Inventor:** YAMAMOTO AKIO

KATAGISHI MAKOTO

SHINKAWA TAKAO

SAKUTA TAKESHI

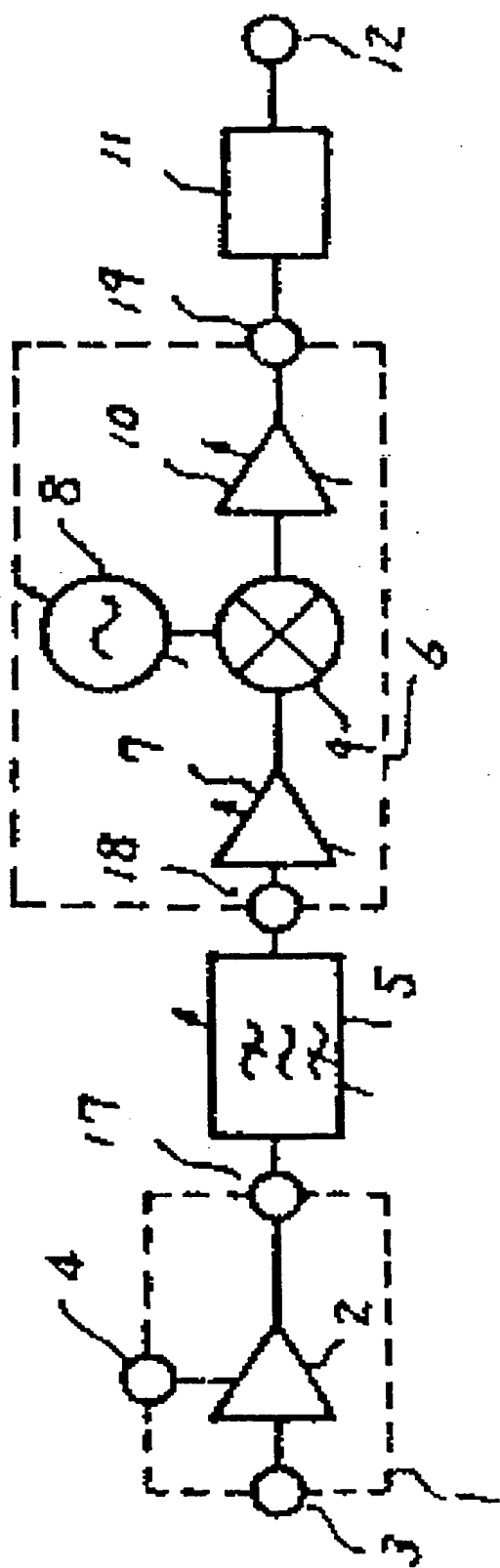
AKITAKE ISAO

Applicant: HITACHI LTD [000510] (A Japanese Company or Corporation), JP (Japan)**Application No.:** 63-323290 [JP 88323290]**Filed:** December 23, 1988 (19881223)**INTL CLASS:** International Class: 5] H04B-001/18; H04B-001/26**JAPIO Class:** 44.2 (COMMUNICATION -- Transmission Systems)**JAPIO Keyword:** R095 (ELECTRONIC MATERIALS -- Semiconductor Mixed Crystals)**Journal:** Section: E, Section No. 980, Vol. 14, No. 437, Pg: 68, September 19, 1990 (19900919)**ABSTRACT**

PURPOSE: To realize a small 1GHz tuner excellent for an image suppressing degree, a distortion characteristic and an oscillating signal leakage characteristic and having few parts by making the 1GHz tuner into IC with the use of a GaAs, making the IC into the two chips constitution of an RF amplifying IC and a mixer IC, and inserting a variable tuning filter between the two chips.

CONSTITUTION: An RF signal in a 1GHz band is inputted from an input terminal 3, and an IF signal is outputted from a terminal 12. A circuit block consists of an RF amplifying IC 1, a variable tuning filter 5, a mixer IC 6, and an SAW filter 11. The variable tuning filter 5 is used for the suppression of an unnecessary wave (an image signal), and makes variable tuning frequencies by interlocking with a tuning voltage $V(\text{sub } t)$ of an oscillating circuit. By making the 1GHz tuner into the two chip constitution of the RFIC 1 and the mixer IC 6, which interpose the variable tuning filter 5, unnecessary wave suppressing deterioration due to the combination of signals inside the IC chip and between the IC terminals can be prevented, and the input terminal leakage of the oscillating signals of an oscillating circuit 8 can be prevented.

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